

11/10/03

Form PTO-1449

U.S. Department of Commerce
Patent and Trademark OfficeAtty. Docket No.
59154-AZ/JPW/GJGSerial No.
Not Yet KnownINFORMATION DISCLOSURE STATEMENT
(Use several sheets if necessary)Applicant
Virginia W. CornishFiling Date
November 10, 2003

Group

U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
H12	5 7 3 6 3 4 3	April 7, 1998	Landry			
	5 4 6 8 6 1 4	Nov. 21, 1995	Fields et al.			
	5 3 1 4 8 1 7	May 24, 1994	Schultz, P.			
	5 1 9 4 5 9 4	March 16, 1993	Kwawli et al.			

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No
H12	9 9 1 0 5 1 0	March 4, 1999	WO				
	9 9 1 0 5 0 8	March 4, 1999	WO				
	9 8 1 3 3 5 3	April 2, 1998	WO				
	9 7 3 1 1 1 3	August 28, 1997	WO				
	9 6 3 0 5 4 0	October 3, 1999	WO				
	0 7 4 2 0 1 5	November 13, 1996	EP				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

H12	Austin DJ, et al. Proximity versus allosteric: the role of regulated protein dimerization in biology. 1994. Chem Biol. 1(3): 131-6
	Belshaw PJ, et al. Controlling protein association and subcellular localization with a synthetic ligand that induces heterodimerization of proteins. 1996. Proc. Natl Acad Sci USA 93(10):4604-7
	Belshaw PJ, et al. Controlling programmed cell death with a cyclophilin-cyclosporin-based chemical inducer of dimerization. 1996. Chem. Biol. 3:731-738

EXAMINER

Hope Robinson

DATE CONSIDERED

8/3/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this from with next communication to applicant.

Form PTO-1449		U.S. Department of Commerce Patent and Trademark Office		Atty. Docket No. 59154-AZ/JPW/GJG		Serial No. Not Yet Known	
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)				Applicant Virginia W. Cornish			
				Filing Date November 10, 2003		Group	

U.S. PATENT DOCUMENTS									
Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate		
AR		6 2 0 0 7 5 9	March 13, 2001	Dove et al.					
J		5 9 2 5 5 2 3	July 20, 1999	Dove et al.					
J		5 9 2 8 8 6 8	July 27, 1999	Liu et al.					

FOREIGN PATENT DOCUMENTS									
		Document Number	Date	Country	Class	Subclass	Translation		
							Yes	No	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)	
AR	Choi J, et al. Structure of the FKBP-12-Rapamycin complex interacting with the binding domain of human FRAP. 1996. Science 273(5272):239-42
J	DeGrado WF, et al. Screening, selection and design: standing at the crossroads in three dimensions. 1997. Current Opinion in Structural Biology 7:455-456
J	Diver SR, et al. Single-step synthesis of cell-permeable protein dimerizers that activate signal transduction and gene expression. 1997. J. Am. Chem. Soc. 119: 5106-5109

EXAMINER <i>Hope K. White</i>	DATE CONSIDERED <i>8/31/06</i>
----------------------------------	-----------------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this from with next communication to applicant.

Form PTO-1449	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No.	Serial No.
		59154-AZ/JPW/GJG	Not Yet Known
		Applicant Virginia W. Cornish	
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Filing Date	Group
		November 10, 2003	



U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Ho SN, et al. Dimeric ligands define a role for transcriptional activation domains in reinitiation. 1996. Nature.
	382(6594):822-6
	Holsinger LJ, et al. Signal transduction in T lymphocytes using a conditional allele of Sos. 1995. Proc. Natl. Acad. Sci. USA
	92:9810-9814
	Hung DT, et al. Understanding and controlling the cell cycle with natural products. 1996. Chem. Biol.
	3:623-639

EXAMINER 	DATE CONSIDERED 8/31/06
---	----------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this from with next communication to applicant.

Form PTO-1449		U.S. Department of Commerce Patent and Trademark Office		Atty. Docket No. 59154-AZ/JPW/GJG		Serial No. Not Yet Known				
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)				Applicant Virginia W. Cornish						
				Filing Date November 10, 2003		Group				
U.S. PATENT DOCUMENTS										
Examiner Initial		Document Number				Date	Name	Class	Subclass	Filing Date if Appropriate
FOREIGN PATENT DOCUMENTS										
		Document Number				Date	Country	Class	Subclass	Translation Yes No
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)										
Hitz		Klemm JD, et al. Dimerization as a regulatory mechanism in signal transduction. 1998. Annu. Rev. Immunol.								
		16:569-92								
↓		Liberles SD, et al. Inducible gene expression and protein translocation using nontoxic ligands identified by a mammalian three-hybrid screen. 1997. Proc. Natl. Acad. Sci. USA								
		94(15):7825-7830								
↓		Licitra EJ, et al. A three-hybrid system for detecting small ligand-protein receptor interactions. 1996. Proc. Natl. Acad. Sci. USA								
		98:12817-12821								
EXAMINER Hitz		DATE CONSIDERED		8/31/06						
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.										

Form PTO-1449	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No.	Serial No.
		59154-AZ/JPW/GJG	Not Yet Known
		Applicant Virginia W. Cornish	
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Filing Date	Group
		November 10, 2003	



U.S. PATENT DOCUMENTS

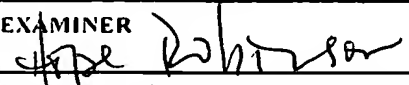
Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No

OTHER DOCUMENTS (Including Author; Title, Date, Pertinent Pages, Etc.)

	Pedersen H, et al. A method for directed evolution and functional cloning of enzymes. 1998. Proc. Natl. Acad. Sci. USA
	95:10523-10528
	Pruschy MN, et al. Mechanistic studies of a signaling pathway activated by the organic dimerizer FK1012. 1994. Cbem. Biol.
	1:163-172
	Schreiber SL. Chemical genetics resulting from a passion for synthetic organic chemistry. 1998. Bioorganic & Medicinal Chemistry
	6:1127-1152

EXAMINER 	DATE CONSIDERED 5/31/06
---	----------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this from with next communication to applicant.

Form PTO-1449		U.S. Department of Commerce Patent and Trademark Office		Atty. Docket No. 59154-AZ/JPW/GJG		Serial No. Not Yet Known			
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)				Applicant Virginia W. Cornish					
				Filing Date November 10, 2003		Group			
U.S. PATENT DOCUMENTS									
Examiner Initial		Document Number		Date	Name	Class	Subclass	Filing Date if Appropriate	
FOREIGN PATENT DOCUMENTS									
		Document Number		Date	Country	Class	Subclass	Translation	
								Yes	No
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)									
		Spencer DM , et al. Controlling signal transduction with synthetic ligands. 1993. Science 262(5136):1019-1024							
		Spencer DM, et al. Functional analysis of Fas signaling in vivo using synthetic inducers of dimerization. 1996. Curr Biol. 6(7):839-47							
		Spencer DM, et al. A general strategy for producing conditional alleles of Src-like tyrosine kinases. 1995. Proc. Natl. Acad. Sci. 92:9805-9809							
EXAMINER <i>[Signature]</i>		DATE CONSIDERED 8/31/06							
*EXAMINER Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this from with next communication to applicant.									

Form PTO-1449		U.S. Department of Commerce Patent and Trademark Office		Atty. Docket No. 59154-AZ/JPW/GJG		Serial No. Not Yet Known	
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)				Applicant Virginia W. Cornish			
				Filing Date November 10, 2003		Group	
U.S. PATENT DOCUMENTS							
Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation Yes No
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
H		Stockwell BR, et al. TGF-beta-signaling with small molecule FKBP12 antagonists that bind myristoylated FKBP12- TGF-beta type 1 receptor fusion proteins. 1998. Chem Biol.					
		5(7):385-95					
		Stockwell BR, et al. Probing the role of homomeric and heteromeric receptor interactions in TGF-beta signaling using small molecule dimerizers. 1998. Curr Biol					
		8(13):761- 70					
		Winkler T., et al. Confocal fluorescence coincidence analysis: An approach to ultra high-throughput screening. 1998 Proc. Natl. Acad. Sci. USA 96:1375-1378					
		Yang, J., et al. Small-molecule control of insulin and PDGF receptor signaling and the role of membrane attachment. 1997 Curr. Biol. 8:11-18					
		Zlokarnik G, et al. Quantitation of transcription and clonal selection of single living cells with beta-lactamase as reporter. 1998, Science 279(5347):84-8					
		Search Report dated May 14, 2001 corresponding PCT International Application No.					
✓		PCT/US01/02285					
EXAMINER		DATE CONSIDERED Huse Roshan 8/3/06					
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this from with next communication to applicant.							

Form PTO-1449 (Substituted) (REV. 8-83)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 59154-AZ- JPW/GJG	SERIAL NO. Not Yet Known
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)		APPLICANT Virginia W. Cornish	
		FILING DATE November 10, 2003	GROUP ART UNIT

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

Amara, J. F. et al.: A versatile synthetic dimerizer for the regulation of protein-protein interactions, *Proc. Natl. Acad. Sci. USA*, Vol. 94, 1997, pages 10618-10623;

PCT International Search Report dated July 17, 2003 corresponding to PCT International Application No. PCT/US02/40943;

Pollock et al. Dimerizer-regulated gene expression. *Current Opinion in Biotechnology* (2002) 13:459-467;

Lin, H., et al. Dexamethasone-Methotrexate: An Efficient Chemical Inducer of Protein Dimerization *In Vivo*. 2000. *J. Am. Chem. Soc.* 122:4247-4248;

Köpytek, S.J., et al. Chemically Induced Dimerization of Dihydrofolate Reductase by a Homobifunctional Dimer of Methotrexate. 2000. *Chem Biol.* 7:313-321;

Firestine, S.M., et al. Using an AraC-Based three-hybrid system to detect biocatalysts in vivo. 2000. *Nature Biotechnology.* 18, 544-547;

Pelletier, J.N., et al. Oligomerization domain-directed reassembly of active dihydrofolate reductase from rationally designed fragments. 1998. *Proc. Natl. Acad. Sci. USA.* 95, 12141-12146;

Ladant, D., Karimova, G. Genetic systems for analyzing protein-protein interactions in bacteria. 2000. *Res. Microbiol.* 151, 711-720;

U.S. Serial No. 10/056,874, filed January 24, 2002;

PG PUB 2002 0168685

U.S. Serial No. 10/084,388, filed February 25, 2002; and

PG PUB 2003 0138785

U.S. Serial No. 10/132,039, filed April 24, 2002.

Patent No. 6,083,918

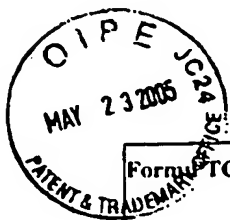
EXAMINER

DATE CONSIDERED

8/31/06

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[illegible]



Form PTO-1449		U.S. Department of Commerce Patent and Trademark Office		Atty. Docket No. 59154-AZ/JPW/GJG/DNS		Serial No. 10/705,644	
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)				Applicant: Virginia W. Cornish			
				Filing Date November 10, 2003		Group	
U.S. PATENT DOCUMENTS							
Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation
							Yes No
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
<i>HC</i>		Supplementary Partial European Search Report issued April 19, 2005 in connection with the counterpart European Application No. 01942644.4					
<i>HC</i>		Cornish, Virginia W. et al., "Dexamethasone-Methotrexate: An Efficient Chemical Inducer Of Protein Dimerization In Vivo," <i>Abstracts of Papers American Chemical Society</i> , Vol. 219, No. 1-2, page BIOL 124 (2000)					
<i>HC</i>		Cornish, Virginia W. et al., "Synthesis of Dexamethasone-Methotrexate CIDS With Variable Linkers," <i>Book of Abstracts, American Chemical Society</i> , 219 th ACS National Meeting, San Francisco, CA, page CHED 401 (March 26-30, 2000)					
<i>HC</i>		Griffith, E.C. et al. "Yeast Three-Hybrid System for Detecting Ligand-Receptor Interactions," <i>Methods in Enzymology</i> , Vol. 328, pp. 89-103 (2000)					
EXAMINER	<i>Hope Robinson</i>	DATE CONSIDERED		<i>8/31/06</i>			
<small>*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</small>							

Applicants: Virginia Cornish
Serial No.: 10/705,644
Filed: November 10, 2003
Exhibit A

[illegible]